

## ABSTRACT OF THE DISCLOSURE

A normalizer normalizes power of a dither signal calculated by a power calculator on the basis of average power of a PCM signal in a range of 18 kHz to 20 kHz, which average power is calculated by a power calculator. An oversampling processor oversamples the PCM signal with a quantization frequency of 44.1 kHz and a quantization word length of 16 bits, which signal is inputted from an input terminal, at a sampling frequency of  $2 \times 44.1$  kHz, and then supplies an output of the oversampling processing to an adder. The adder adds the normalized output from the normalizer to the oversampling output from the oversampling processor, and then supplies the addition output to an oversampling processor.